THE DEVELOPMENT OF INTERBANK BORROWING IN THE NATIONAL SYSTEM, 1869–1914. II

III. THE EXTENT AND DISTRIBUTION OF INTERBANK BORROWING

The beginnings of interbank borrowing in America are shrouded in obscurity. That interbank borrowing was sometimes practiced among the state banks appears from the reports of their condition submitted to Congress by the secretaries of the treasury, in which such items as "time bills and other evidences of debt" or "bills payable and time drafts" are occasionally found; but such items are not large and are given for only a few of the states. A few cases involving bank borrowing reached the courts, and in citing one decided by the New York supreme court in 1857, a federal justice later remarked its value "as evidencing that years before the national banking act the borrowing of money by one bank from another bank was . . . . recognized . . . . as included, both as a matter of fact and in law, in the business of banking."[1]

In view of the practice disclosed by these early cases and reports, it seems probable that interbank borrowing existed in the national system from its very beginning; but the items "notes and bills rediscounted" and "bills payable" appear for the first time in the consolidated statements of the national banks for April 17, 1869.[2] From that date to 1914, the statistics of borrowings as published by the comptroller reveal a progressive, though

[1] *Chemical National Bank* vs. *Armstrong*, 76 Federal Reporter, 339 (1896); citing *Curtis* vs. *Leavitt*, 15 New York, 9–52 (1857), approved in *Barnes* vs. *Bank*, 19 New York, 156.

[2] It is possible that before this time borrowings were reported as due to banks, or even as individual deposits; or they may have been included in the "other items" reported in 1863–65. Prior to the act of March 3, 1869, reports were made as of the first Monday of each quarter. The plan of calling for reports as of a past date made more difficult the practice of "window dressing" which had previously been so common. If, as seems probable, this was the principal cause of the appearance of borrowings in the reports at this time, it suggests the existence of prejudice against bank borrowing at this early date.

irregular, increase in amount. The maximum points in the fluctuations have come in periods of stress or actual panic in the money markets, while the low points have come at times of ease or stagnation.[1] Nor is the increase in borrowings merely incident to the growth and extension of the national banking system; the ratio of borrowings to capital and surplus grew within the period from less than 1 to more than 9 per cent.

The statistical history of interbank borrowing divides itself into three periods, whether the criterion of division be the amount of borrowings or the relative importance of rediscounting and direct borrowing. In the first period, extending from 1869 to 1882, total borrowings were neither large nor widely fluctuating. Their average amount was well under nine millions of dollars and at no call did they exceed thirteen and a half millions, the figure reached just before the panic year of 1873. Bills payable were the more common form of borrowing, forming on the average 56 per cent of the total. Relatively to capital and surplus, borrowings were largest at the end of 1872 (2.27 per cent) and smallest in the summer of 1869 (.82 per cent). The average ratio during the period was $1\frac{1}{2}$ per cent.

The second period embraces the decade 1883–92. At each call during these years the amount of rediscounts exceeded that of bills payable, and formed on the average 72 per cent of total borrowings. An increase in the amount of borrowing occurs, the average amount being sixteen and a half million dollars. There is also a relative increase in borrowing, the average ratio to capital and surplus rising to 2.15 per cent. The ratio was lowest in the spring and summer of 1885 (1.18 per cent) and highest in December,

[1] Neglecting what appear to be merely seasonal fluctuations, the low and high points of these movements are as follows:

Minima		Maxima	
June 12, 1869	$ 4,127,000	December 27, 1872	$ 13,491,000
February 21, 1880	6,100,000	June 20, 1884	15,606,000
May 6, 1885	7,903,000	December 19, 1890	37,100,000
March 1, 1892	12,394,000	July 12, 1893	61,322,000
February 28, 1894	16,964,000	October 6, 1896	35,312,000
February 4, 1899	5,137,000	November 17, 1903	49,558,000
March 14, 1905	22,879,000	December 3, 1907	100,905,000
February 5, 1909	24,707,000	October 31, 1914	162,617,000

1890 (4.25 per cent). The seasonal character of the fluctuations appears more distinctly, although somewhat distorted by the severe stresses or panics which disturbed the money markets in 1884 and 1890.

The third period extends from 1893 to 1914, and is characterized by a great increase in the amount of borrowings and by a marked change in the relative use of bills payable. On the average, three-fourths of total borrowings assumed this form, as against one-fourth in the second period. At each call the amount of bills payable exceeded that of rediscounts, the relative use of which progressively declined during the period. Borrowings increased to an average of $38,000,000 and fluctuated more widely from year to year and from season to season. From the high level attained in the panic year of 1893, borrowings decreased indeed, but remained well above the average recorded in the two earlier periods until 1897. In the first years of returning prosperity borrowings were small, falling in February, 1899, to a lower figure than had been reported since 1869; but in 1901 they began again to increase, and reached new high levels in December, 1907, in August, 1913, and again in September and October, 1914. The relative increase in borrowings was also marked; their average ratio to capital and surplus in this period was 3.11 per cent, and at only a few calls since 1902 has the ratio fallen below the average of the second period.

The rapid growth of borrowing among national banks in recent years suggests the advisability of the subdivision of this third period. From 1893 to 1906 borrowings varied widely, but exceeded $50,000,000 only once—in the summer of 1893. The average amount reported during these fourteen years was $24,500,000, of which one-third was in the form of notes and bills rediscounted. This average was exceeded at each call during the next eight years, and the average amount borrowed in the later period was $61,000,000, of which only 18 per cent took the form of rediscounts. The average ratio of borrowings to capital and surplus was 3.78 per cent, as against 2.47 per cent in the earlier period.

The reasons for this recent extension of the practice of inter-bank borrowing appear to have been the necessities—real or fan-

cied—of the panic period of 1907 and the gradual breaking down of the prejudice against borrowing resulting from a campaign for a banking reform whose central feature should be the facilitation of rediscount. An ancillary cause of the greater familiarity with borrowing thus induced may have been the extension of the use of substitutes for it in the issue of clearing-house loan certificates in 1907 and 1914, and the acceptance of commercial paper as security for public deposits in 1913 and 1914, as well as for emergency currency in 1914.

It is next in order to examine the distribution of borrowings among the several classes of banks comprising the national system. Data for this inquiry may be had for the fourth call (near October first of each year) from 1889 to 1899[1] and for each call since 1899.

Banks of the central reserve cities did not as a rule resort to borrowing on any considerable scale. Great use of borrowing would indeed have been inconsistent with their position as banks of ultimate deposit for other banks.[2] Their borrowings as a whole therefore reflect the necessities of individual banks, rather than any general needs.[3] Although the banks of the central reserve cities represent about one-fifth of the capital invested in the national system, their borrowings formed as much as one-tenth of the amount borrowed by all the national banks only at the autumn report of 1902.

Because of the greater number and wider distribution of reserve city banks, their borrowings are of more general interest than those of the central reserve city banks. Most of the reserve cities are, moreover, closer to the agricultural sections of the country in which arise those variations in the demand for money and loans which account for the greater part of interbank borrowing. It

[1] Similar data may be had for the years 1873–85, except that the cities are classified differently; Chicago and St. Louis were then in the class of "other redemption cities."

[2] Conway and Patterson, *The Operation of the New Bank Act*, p. 94.

[3] This statement is of course subject to modification to the extent that Chicago and St. Louis partake of the nature of reserve cities, carrying balances and perhaps borrowing in New York. And it is also true that the autumnal drain had a reflex effect in occasioning borrowings by central reserve city banks.

has frequently been supposed that borrowing by reserve city banks is so unusual as to be entirely negligible,[1] but an examination of the statistics published by the comptroller shows that their proportion of total borrowings is by no means inconsiderable. Although their proportion of aggregate capital and surplus averaged somewhat less than one-fourth, their borrowings from other banks varied from one-twelfth to one-third of total borrowings and averaged 18 per cent of the total.

As would be expected, borrowing is most common among country banks. They feel most keenly the seasonal variations in the demand for money and loans and their smaller resources are more easily and quickly depleted by any unusual demand. Hence, as a group, they become regular borrowers. Country banks, having approximately half the total capital invested in national banks, were responsible for four-fifths of the borrowing within the system between 1900 and 1914. The actual proportion varied from 67 per cent in November, 1903, when the city banks had not yet recovered from the "silent panic," to 91 per cent in March and June, 1911. In earlier years, at least at the autumn calls, the proportion of country bank borrowings was smaller,[2] and it was relatively reduced by the recent increase in the borrowings of city banks.

An analysis of the distribution of aggregate borrowings among geographical sections from 1897 to 1914 shows that in these eighteen years national banks in the southern states borrowed nearly as much as those of all other sections combined. The remainder of the borrowings was divided among the other sections in the following order: eastern, middle western, New England, western, and

[1] Such references to interbank borrowing in this country as are found in the literature of banking commonly assume that the practice is confined to country banks. See Holdsworth, *Money and Banking*, p. 257; Fiske, *The Modern Bank*, p. 125; Laughlin (ed.), *Banking Reform*, p. 202; Conway and Patterson, *The Operation of the New Bank Act*, pp. 94, 108, 280; *Report of the* (Indianapolis) *Monetary Commission*, pp. 321, 322; H. G. Moulton, *Principles of Money and Banking*, Part II, pp. 122–24 (Chicago, 1916).

[2] Between 1873 and 1885 the proportion varied from 55 to 87 per cent and averaged 69 per cent; between 1889 and 1899 it ranged from 69 to 89 per cent and averaged 77 per cent.

Pacific.[1] The number of borrowing banks is also relatively large in the South; on September 6, 1904, 43 per cent of the southern national banks were borrowing money, as compared with 18 per cent of all national banks; while the proportion in the cotton states as a group was 50 per cent, rising in South Carolina and Georgia to 83 per cent.[2] Moreover, there were wide variations in the distribution of borrowings as compared with banking capital. Borrowings of the southern banks between 1897 and 1914 amounted to 15.5 per cent of their aggregate capital liabilities, while the average for the entire country was 3.2 per cent.

The explanation of the heavy borrowings in the South has been incidentally suggested in the discussion of the motives of borrowing, where it was concluded that the marked seasonal character of the dominant industry of cotton growing was the chief factor in the situation. But the practical difficulty of utilizing in the dull season banking resources adequate to the imperious demands of the crop-moving period doubtless leads to an undersupply of banking facilities in many parts of the South, which in turn results in practically continuous borrowing. Moreover, borrowing has been resorted to more freely in the South than in other sections, because the logic of the situation tended to prevent the development of any general prejudice which would restrict its use.

It may seem on first view that the connection between southern borrowing and the cotton crop should extend to a correlation of the amount of borrowings with the size or value of the aggregate crop. But this is not to be expected. Borrowings may be heavy because the crop is large and vast sums are required for its movement, as seems to have been the case in 1910 and perhaps in 1913.

[1] The percentage distribution of aggregate borrowings among sections is given in the following table.

Section	Percentage
New England	8.6
East	19.0
South	48.9
Middle West	12.2
West	7.0
Pacific	4.3

[2] See the table published in the *Financier*, CII, 259–60 (July 26, 1913), and reproduced in *Hearings*, II, 1888–90.

Again, a large crop may be accompanied by such low prices that producers decide to hold for higher prices; and the banks must borrow to support them. This situation appears to explain the heavy borrowings of southern banks in the fall of 1911. Finally, either a short crop or the failure of the market may work such hardship to producers that they cannot meet their obligations, and the banks are forced to borrow. Something of this sort occurred in 1901, but the most notable instance is found in 1914. There are, moreover, a variety of influences which may affect the condition of the banks and the amount of borrowing in such a way as entirely to offset the crop influence. For example, the crop of 1909 was more valuable than any which had preceded it; but such was the condition of trade that the banks found less need to borrow than in any year since 1905. It appears, then, that a wide variety of conditions affects the extent of borrowing, and that there is no unvarying connection between crops and the amount of interbank loans in the South. And if not traceable in this section, it is certain that no such connection could be established in other sections or in the country as a whole.

IV. SEASONAL VARIATIONS IN INTERBANK BORROWINGS

The distinctive function of interbank borrowing as it developed in this country down to 1914 was to furnish assistance during the harvesting and crop-moving season to banks located in the agricultural regions. It was thus largely a device for imparting some degree of seasonal elasticity to our currency and banking system through bringing the resources of distant banks to aid in the crop movement.

Banks in the agricultural sections are called upon to make advances to their farmer customers from early spring until the crop is marketed. Loans for the making of the crop are estimated to be 50 per cent greater than loans for the harvest, but the borrowing demand continues until the crop is sold, even though this involves a term of holding for better prices.[1] Trade customs may cause

[1] See especially the testimony of F. M. Law, *Hearings*, III, 2335–36. The beginning of the loan demand varies with the season from January to June. *Ibid.*, I, 953; III, 1548, 1549, 1561, 1568; III, 2335. In some sections, loans to cattle-feeders are required in the autumn. *Ibid.*, II, 1548–49. The cattle loan banks are probably

the loan to be made to the merchant who "carries" the farmer, but the result is practically the same. As the season advances and the reserves become low, either through cash withdrawals or the expansion of deposits through lending operations, the banks begin to borrow from their city correspondents. Borrowing begins in April or May and reaches its maximum from July to October, according to climate and season.[1]

These seasonal variations in the borrowing demand are reflected in the percentage distribution of aggregate borrowings among the five calls of each year.[2] The amount of borrowing tends to increase throughout the year until the fourth call, when about one-fourth of total borrowings is recorded. The dates of the fourth calls, from 1869 to 1914, varied from August 9 to October 9, and those of the fifth, from October 21 to December 31. Between these periods borrowings normally declined. Borrowings at the fifth call exceeded those at the fourth in twenty out of forty-five years; but in four of these years (1890, 1903, 1907, and 1914) the fifth calls came in periods of panic, and in six others the lateness of the calls accounts for the amount of borrowings.

Among the periods into which the history of borrowings has been divided in this study, the only important exceptions to this tendency to a gradual increase culminating at the fourth call are found in 1869–82, when borrowings at the second and fifth calls

reducing the amount of accommodation furnished the feeders by the banks directly. See J. F. Ebersole, "Cattle Loan Banks," *Journal of Political Economy*, XXII, 577–80 (June, 1914); John Fletcher, "Financing the Cattle Industry," *Banking World*, XVI, 192–94 (November-December, 1914).

[1] *Hearings*, I, 469; II, 1276, 1548, 1571, 1627; III, 2336; *Journal of Commerce* July 19, 1913.

[2] The percentage distribution for the periods specified is as follows:

Period	First Call	Second Call	Third Call	Fourth Call	Fifth C.l
1869–1914	15.4	15.6	19.0	25.6	24.5
1869–1882	17.9	19.9	19.5	21.2	21.5
1883–1892	15.2	17.0	18.3	25.5	23.9
1893–1914	14.8	14.8	19.2	26.5	24.6
1893–1906	15.9	16.7	20.3	25.3	21.8
1907–1914	14.1	13.5	18.4	27.4	26.6

were larger than those at the third and fourth, respectively, and in 1907–14, when borrowings at the first call exceeded those at the second. These exceptions, however, appear to be due chiefly to variations in the dates at which calls were made in these periods.

Country banks were most heavily indebted for borrowed money at the fourth call in each of the fifteen years for which data are available, except 1905 and 1907, when the fourth calls fell in August; and they were least heavily indebted at the first call in eleven years. Seasonal variations of total borrowings are largely determined by variations in the borrowings of country banks,[1] since these borrow nearly four times as much as city banks. It is therefore unnecessary to examine in detail the reasons for the seasonal distribution of the borrowings of country banks; they have been sufficiently explained in discussing seasonal variations in aggregate borrowings.

The number of central reserve city banks is so small—there were forty-nine on September 12, 1914—that the seasonal variations in their borrowings would have little general interest but for the fact that these central markets quickly reflect the demands upon interior banks for money and loans. The average borrowings of central reserve city banks from 1900 to 1914 declined gradually from the first to the third call, increased sixfold from the third to the fourth call, and again declined slightly to the fifth call. It is thus apparent that individual banks in the central reserve cities were most likely to require assistance in the autumn, when the exigencies of the crop demand not only caused interior banks to ask their reserve agents for the return of deposits and for loans, but frequently led to stringency in the central markets as well.

The borrowings of reserve city banks exhibited a more independent tendency in their seasonal variations. Average borrowings declined slightly between the first and second calls and then steadily increased until the fifth call, when they were twice as

[1] The percentage distribution of borrowings among the five calls is given in the following table for the country banks and for all the national banks for the period 1900–1914:

Country banks....	14.2	14.3	19.5	27.0	25.0
All banks.........	14.4	13.9	18.7	26.9	26.1

great as at the first call.[1] Where banks located in reserve cities have a clientèle which is predominantly agricultural, their borrowings are likely to follow the course of country bank borrowings. On the other hand, the intermediate position of reserve city banks in our banking system as it was prior to 1914 frequently enabled them to transfer the early demands of their correspondents to their own reserve agents in the central reserve cities, and thus to postpone the period when the calls of correspondents for cash or for loans reduced actual or relative reserves to a point which necessitated their replenishment by borrowing. Of considerable importance, also, is the fact that the city banks, rather than the country banks, are called upon to finance the moving of the crops, as distinguished from their harvesting.[2] Moreover, the holiday demand for cash falls with relatively greater weight upon city banks than upon those situated in the smaller country towns. For these reasons, it appears, the seasonal distribution of the borrowings of reserve city banks differs from that of both central reserve city and country banks.

The seasonal swing of borrowings was more pronounced in the southern states than in any other section of the country. Minimum borrowings occurred at the second call, which was usually made before the period of spring borrowing by the banks had fairly begun. This tendency appears not only in the South, but also in other sections in which agriculture is the dominant industry. Nearly one-third of total borrowings in the South was reported at the fourth call, and more than a fourth at the fifth call.

By way of summary, it may be said that down to 1914 seasonal variations in borrowings were governed primarily by the exigencies of the crop-moving period. In New England and to a smaller extent in the eastern states, industrial and social factors influenced the demand for bank loans, while the intermediate position which the banks of the reserve cities occupied in our banking system caused the period of their heaviest borrowings to come somewhat

[1] The percentage distribution of borrowings is as follows: 15.0, 13.0, 16.8, 25.1, 30.1.

[2] See the testimony of C.M. Harrington, *Hearings*, I, 961–62, and Geo. W. Rogers, *ibid.*, II, 1569.

later in the year than it comes among central reserve city and country banks.

V. THE USE OF INTERBANK BORROWING IN PANICS

The supreme test of the elasticity of a country's banking arrangements is found in time of panic. In such periods the demand for loans is especially insistent, and if the soundness of the banking system is under suspicion, the demand for cash is also pressing. Under the rigid reserve requirements and lack of a general discount market which characterized our banking system down to 1914, the normal autumnal drain of cash was frequently, even usually, converted into a period of stress in the money market. Our system was ordinarily able to withstand these recurring stresses, although often at the cost of very high rates for loans. But these autumnal strains proved fertile soil for panics,[1] which were usually accompanied by a severe contraction of loans and by a hoarding of cash which augmented the contraction.

It is a rather common error to imply, if not explicitly to state, that interbank borrowing completely ceased in times of panic.[2] This view is refuted by the testimony of a number of bankers before the senate committee, although one or two testified to serious difficulty in getting advances in 1893 and 1907.[3] The most complete refutation, however, is furnished by the statistics of interbank borrowing. Although calls for reports were not usually made during the continuance of severe panic, these statistics show in each panic except that of 1873 a distortion of the normal seasonal swing of borrowings which corresponds with the panic period.[4]

The calls for reports of condition in 1873 entirely missed the period of panic. It is probable, however, that loans to banks as

[1] Kemmerer, *Seasonal Variations*, pp. 222–23, 232.

[2] Conway and Patterson, *The Operation of the New Bank Act*, pp. 95, 97; Laughlin (ed.), *Banking Reform*, p. 55; W. C. Mitchell, *Business Cycles*, p. 552 (University of California Memoirs, Vol. III, Berkeley, 1913).

[3] *Hearings*, I, 675; II, 1252, 1277, 1527, 1547, 1564, 1570, 1666, 1900; III, 2356. One banker was refused currency but apparently not loans (II, 1666, 1672).

[4] The dates of the successive panics are conveniently given in Kemmerer, *op. cit.*, p. 222. The stock market "panics" of 1899, 1901, and 1903 are excluded from this study because of their limited scope and duration.

well as to individuals expanded upon the issue of clearing-house loan certificates, and certainly interior demands for currency were met with considerable freedom.[1] The panic of 1884 broke in the middle of May; at the next call for reports (June 20), borrowings amounted to one-fourth of the year's total, although the normal proportion for the third call is 18 or 19 per cent. Similarly, in 1890, the panic of November was reflected in the proportion of borrowings reported at the fifth call, which was 5 per cent in excess of the normal or average proportion for the period 1883–1892.[2] In the middle of the panic of 1893 (July 12), the proportion of the year's borrowings exceeded the normal for the season by 9 per cent.[3] The figures for this year may perhaps be exaggerated by the inclusion of clearing-house loan certificates with bills payable, but there can be no doubt that interbank borrowings increased during the panic; the amount of rediscounts alone increased $11,000,000, or more rapidly than total borrowings. Again in 1907, the proportion of borrowings at the call of December 3 was greatly in excess of the normal at that period; and a similar but less marked excess is to be observed at the calls of September and October, 1914. The panic of 1914 differed from our earlier panics in that there was no appreciable amount of hoarding; the unprecedentedly heavy borrowings in that period seem to have reflected merely the more general and more effective effort to cope with panic conditions, in this case complicated by the financial problems arising from the European war.

Inasmuch as panics are ordinarily more severe in cities than in country districts, it is to be expected that the increase in borrowings in times of panic should be most marked in the cities. The data available do not permit a test of this tendency in all the panics through which the national banks have passed, but some interesting

[1] Sprague, *op. cit.*, pp. 53, 55.

[2] This was the final phase of a considerable period of disturbance in the financial markets. Sprague, *op. cit.*, especially pp. 134–35, 141–43. Borrowings at the call of December 19 are a better test than those on October 2, which reflect the crop demand.

[3] A. D. Noyes, "The Banks and the Panic of 1893," *Political Science Quarterly*, IX, pp. 12–30 (March, 1894).

illustrations of it may be found. At the autumn calls made between 1873 and 1885, the borrowings of city banks averaged 31 per cent of total borrowings; but on September 12, 1873, a week before the outbreak of panic, they amounted to 41 per cent of the total—a proportion which was exceeded only twice during the period. Between 1889 and 1899 the average proportion at the fourth calls was 23 per cent. In October, 1893, the borrowings of city banks amounted to 29 per cent of the total. Only once during the period was this proportion again reached. In this connection it should be remembered that the borrowings of country banks are normally heaviest in autumn; so that the increase reported in the borrowings of city banks at these autumn dates is the more remarkable.

In March and December of 1907, the borrowings of city banks were 32 per cent of the total, while the average from 1900 to 1914 was 18 per cent at the second call and 24 per cent at the fifth call. In 1914 the needs of the country banks were especially pressing because of the failure of markets due to the war; but at the end of October the proportion of city borrowings was 27 per cent, and in September it was 21 per cent, or slightly above the average for the period, although the crop demand was then near its height.

It is thus clear that interbank borrowing has ordinarily been stimulated under panic conditions. It is not intended to imply, however, that banks have not found difficulty in borrowing in such periods. The high rates sometimes exacted on loans between banks, as well as the comparatively small amounts[1] borrowed in the earlier panics, plainly show that there was difficulty. But the difficulty seems to have resulted from the lack of a discount

[1] Maximum borrowings in panic years, their ratio to capital and surplus, and the date of the beginning of panic are given below.

MAXIMUM BORROWINGS

Date	Amount	Ratio	Beginning of Panic
June 13 1873	$ 12,731,000	2.10	September
June 20, 1884	15,606,000	2.34	May
December 19, 1890	37,100,000	4.25	November
July 12, 1893	61,322,000	6.56	May
December 3, 1907	100,905,000	6.96	October
October 31, 1914	162,617,000	9.10	August

market rather than from the withdrawal of the customary lines of credit extended to depositing banks by their city correspondents; when these comparatively limited lines had been fully availed of, there was ordinarily no other recourse. The efficacy of such loans, moreover, was in many cases restricted by the inability of the city banks to provide the currency or lawful reserve money required by the borrowing banks. The rigid reserve requirements of the national bank act often proved an effectual bar to the making of loans in lawful money, for such loans might have reduced reserves below the legal minimum, even when impaired reserves did not forbid the making of a loan in any form. These difficulties were often exaggerated in panics owing to the breakdown of the domestic exchanges following the suspension of payments.

The extent to which interbank borrowing has been of service in mitigating the severity of panics cannot be accurately measured. The increase of borrowings between the calls immediately preceding and during or following the panic amounted to $21,000,000 in 1893 and to $42,000,000 in 1907; in 1914 the increase was $59,000,000 in September and $71,000,000 at the end of October. It can hardly be doubted that the large increases in borrowings in 1907 and 1914 help to explain the relatively small loan contraction in those years as compared with previous panic periods.

VI. THE SOURCES OF BORROWINGS

It is natural in any banking system that the great bulk of bank borrowings should be negotiated in the financial centers. The situation in the United States departs from the general rule in the degree to which centers of minor importance are resorted to for loans, just as our banking system itself differs from those of other countries in the more or less artificial development of a class of reserve cities.

The popularity of New York City as a resource for loans was frequently evidenced in the hearings before the senate committee on banks and banking. Not only was it mentioned as the source of borrowings by bankers from various sections of the country, but the certainty of obtaining the desired accommodation there and the relatively favorable terms for loans were also emphasized.

Such limited statistical data as are available indicate that the national banks of New York furnished more than a third of all loans to banking institutions in the United States.[1] In the absence of other data, some idea of the distribution of these loans may perhaps be gleaned from the distribution of loans made to its correspondents by the National City Bank. On November 25, 1913, two-thirds of its loans to banks were made in the South, one-sixth in the Middle West and one-twelfth in the East.[2]

National banks in the other central reserve cities—Chicago and St. Louis—serve as an important source of bank borrowings only in a more restricted area, including the West, Southwest, and Middle West.[3] Together they provided about $40,000,000 on January 13, 1914, or one-fourth of the loans to banks made by the national banks of thirty-one cities. The central reserve cities as a group therefore provided three-fifths of such loans, although at the same date they held considerably less than half the total amount due from national banks to other banks. It is interesting to observe that these loans formed no negligible part of the lending banks' investments, forming 7½ per cent of the total loans and discounts of the central reserve city banks.

Data concerning the amount of loans to banks by national banks in reserve cities are available for only twenty-one cities. Banks in these cities were lending rather more than a third of the total amount of loans to banks reported on January 13, 1914. Three of these cities, however, were lending as much as the other eighteen;[4] while all of them together were lending but little more than New York. It follows naturally from the position of these

[1] Out of $162,706,000 loaned to other banks by the national banks of thirty-one cities on January 13, 1914, New York banks loaned $59,107,000. *Decision of the Reserve Bank Organization Committee*, etc., p. 14; reprinted in *Finance Report*, 1914, pp. 79–92. and in *Report of the Comptroller*, 1914, pp. 135–52. On June 30, 1914, national banks in New York had loaned to their correspondents $90,360,000. *Report of the Comptroller*, 1914, p. 9. At the same date the borrowings of all classes of banks amounted to $232,561,000.

[2] Derived from the monthly circular of the National City Bank for December, 1913.

[3] See the statements as to source of borrowings in *Hearings*, I, 691; II, 1277, 1547, 1570, 1672; III, 2356.

[4] Kansas City loaned $18,844,000, or $4,500,000 more than St. Louis; Philadelphia loaned $6,859,000 and Omaha, $5,769,000; a total of $31,472,000. *Decision*, p. 14.

cities as secondary reserve centers that banks in them should often be found borrowing with one hand while lending with the other, thus serving as intermediaries between smaller borrowing banks and the ultimate lenders. Under our peculiar reserve system, this intermediation was desirable, since it served to increase the amount of loans which could be made on the basis of a given amount of lawful money and thus increased the elasticity of the credit system.

In the case of some of these cities, the relations of the banks with their correspondents were primarily those of collection and exchange rather than of lending and borrowing. This was notably the case in Albany, which during this period handled a large collection business for the "up state" banks of New York.[1] Much the same was true of Pittsburgh and Brooklyn, while in Philadelphia, Boston, and Cleveland loans to banks formed no more than 4 per cent of bankers' balances. On the other hand, in a few cities lending was an important part of the correspondent relation. The percentage ratio of loans to balances on January 13, 1914, was 17 in Houston and Louisville, 25 in Dallas, 28 in Washington, and 35 in Omaha and Kansas City. In these cities loans to banks formed a relatively large part of total loans and discounts. The proportion rose to 28 per cent in Kansas City and to 18 per cent in Omaha; in the other cities it ranged from 6 to 8 per cent.

Although much the greater part of interbank borrowing in this period was negotiated in the central reserve and reserve cities, the non-reserve cities were frequently important sources of loans to banks situated in the country towns in their immediate districts. On January 13, 1914, the national banks of Richmond, Nashville, and Atlanta were together lending as much as those of Boston, and the banks of Memphis were lending $500,000 to other banks. Country banks in Arkansas appear to do a good deal of borrowing in Little Rock,[2] and it is said that village banks are frequently borrowers in such a city as Marion, Indiana.[3]

[1] *Hearings*, III, 2340. On January 13, 1914, Albany ranked tenth among reserve cities in point of amounts due to other banks and twentieth in amount of loans to banks. Doubtless the location of the correspondent banks helps to explain the amount of their borrowings.

[2] *Hearings*, II, 1569. [3] *Ibid.*, II, 1626.

The lack of a discount market resulted in more or less uncertainty as to the possibility of obtaining assistance through interbank borrowing in times of general financial strain. The door was therefore opened to the development of a degree of dependence of small banks upon larger which in some cases may have more or less closely approximated the relations of a branch to its parent bank. This approximation is not very close, however, except in cases of mutual ownership of stock.[1] On the whole, it seems an exaggeration to say that "we have had a system of practical centralization, based on special favors to desirable correspondents."[2] Borrowing and lending among banks as conducted in recent years seems rather to be based on considerations of mutual business advantage. A correspondent bank's line of credit is determined upon only after careful credit investigation, while the profitableness of correspondent relations and the safety of interbank loans induce a competition sufficiently keen to insure reasonably equitable conditions in the terms of credit granted to borrowing banks.[3]

Nor may the dependence of the small banker properly be inferred from his tendency to defer to the city banker's judgment on questions of general banking policy,[4] and to seek his advice on investments in securities and commercial paper and on many other matters. Such services, like many rendered by banks to their individual customers, are given without definite compensation, although it is not uncommon to maintain balances with city banks primarily in consideration of such services.[5] On the other hand, relations of friendship sometimes develop between the officers of borrowing and lending banks which must tend to modify

[1] See *Report of the Committee on Banking and Currency*, 63d Cong., 1st Sess., House Reports, I, No. 69, p. 4; Laughlin (ed.), *Banking Reform*, pp. 204–7, 236, 272–73.

[2] *Ibid.*, p. 21. See also pp. 9, 102–3, 258, 267.

[3] Witnesses before the senate committee frequently implied that loans were not given them as favors, but because they were entitled to borrow in reasonable amounts. *Hearings*, I, 707, and especially II, 1564, 1568. From this point of view, the relation between average balances and the line of credit extended is of advantage in helping to place borrowing on a definite basis. For the influence of competition, see *Hearings* III, 2213.

[4] See *Hearings*, I, 948; II, 1545; III, 2337.

[5] *Hearings*, II, 1256.

purely business considerations;[1] but in the very nature of the case, these instances cannot be very numerous nor can they seriously interfere with business relations.

VI. SUMMARY AND CONCLUSION

Despite serious handicaps, the practice of interbank borrowing had a very considerable development among national banks in the United States prior to the establishment of the Federal Reserve System. The law put limitations upon borrowing which were in many instances burdensome. A widespread prejudice against the practice existed, partly because the prevailing form of commercial paper in use in the United States has been such that the credit of the rediscounting bank is necessarily involved in its rediscount, but chiefly because the character of banking organization tended to restrict bank borrowing and thus to render it unfamiliar to banks and to the public generally. Furthermore, decentralization of banking gave us a great number of small banks whose paper could not feed a broad discount market, and rigidity of the legal requirements as to reserves and note issues on the one hand necessitated some provision for the assistance of those banks which are situated in sections relatively undeveloped industrially, or which most immediately feel seasonal fluctuations in the demand for currency and loans; while on the other, it prevented such assistance from being rendered with entire freedom by the banks of the financial centers. Under such circumstances, the wonder is not that there was so little co-operation among the banks of this country, but rather that there was so much. Co-operation, however, could not be on a sufficiently large scale to insure the meeting of potential borrowers and lenders; the borrowing bank was of necessity in much the same position as the individual who applies to his bank for accommodation.

[1] This point was more or less clearly implied in statements to the writer by officers of some of the larger New York banks, and in the testimony before the senate committee it frequently appeared that borrowing banks are little inclined to "shop" among their correspondents for the lowest possible rate, although dissatisfaction with treatment accorded may lead to a change of correspondents. *Hearings*, I, 707; II, 1277; and see *New York Evening Post*, August 9, 1913.

The insufficiency and unavailability of the means of assistance to banks whose ready funds were inadequate to the demands upon them were most noticeable in the recurring panics which swept the country at more or less regular intervals throughout its history. The more recent panics, especially, proved to be powerful educational influences, and after 1907 public appreciation of the general character of the needed reforms in our banking and currency systems rapidly increased. The strong trait of individualism which has long characterized our bankers rendered the establishment of a system of branch banking impracticable; and in the absence of branch banking it was a true instinct which led to the general rejection of proposals for removing the restrictions which the law has thrown around the national banks in the matter of reserves and note issues. Although the removal of these restrictions might have done much to increase the mobility of banking resources, such a large degree of freedom in banking would not only have been inconsistent with the traditions of the American people, but would quite possibly have proved to be fraught with serious dangers of the sort which characterized our early banking history.

The creation of some sort of central machinery for the holding of reserves and the granting of loans or rediscounts to other banks was therefore the logical solution of our problem of banking inelasticity, as well as the solution suggested by the experience of most foreign countries. The interesting development of the function of interbank borrowing in American banking since 1914 requires separate treatment.

OLIVER C. LOCKHART

NATIONAL BANK OF COMMERCE
NEW YORK